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10/849,749	05/19/2004	George Claseman	33773	8575

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EXAMINER
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SAVLA, ARPAN P

ART UNIT	PAPER NUMBER
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2185

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/849,749

Applicant(s)

CLASEMAN, GEORGE

Examiner

Arpan P. Savla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-18, 20 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 5, 14 and 19-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The instant application having Application No. 10/846,579 has a total of 20 claims pending in the application, there are 3 independent claims and 17 dependent claims, all of which are ready for examination by Examiner.

### INFORMATION CONCERNING OATH/DECLARATION

#### Oath/Declaration

1. Applicant's oath/declaration has been reviewed by Examiner and is found to conform to the requirements prescribed in 37 CFR 1.63.

### INFORMATION CONCERNING DRAWINGS

#### Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the "control engine" in claims 7-25 and the "plurality of register banks" in claim 23** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### **ACKNOWLEDGMENT OF REFERENCES CITED BY APPLICANT**

##### **Information Disclosure Statement**

3. As required by MPEP § 609(c), Applicant's submission of the Information Disclosure Statement dated February 14, 2005 is acknowledged by Examiner and cited references have been considered in the examination of the claims now pending. As required by MPEP § 609 c(2), a copy of the PTOL-1449 initialed and dated by Examiner is attached to the instant office action.

#### **OBJECTIONS**

##### **Specification**

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The subject matter in question is disclosed in claims 5 and

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20. The claims disclose “a first operational code is associated with a first block and a second operational code is associated with a second block.” However, Applicant’s specification does not specifically disclose this subject matter. Paragraph 0015, lines 10-11 disclose the fact that operational code 142 provides direction for handling operations on the designated block. However, nowhere in Applicant’s specification does it specifically disclose that there are two **distinct** operational codes associated with two **distinct** blocks as claimed in claims 5 and 20.

### **Claims**

5. **Claims 14, 19, and 22** are objected to because of the following informalities:

6. **As per claim 14**, on line 2 of the claim the Examiner suggests the phrase “plurality of registers” instead read “plurality of location registers” in order to lessen confusion as well as make the claim language more in line with the specification (just as the Applicant has done in claims 5 and 20 by using the language “plurality of location registers”).

7. **As per claim 19**, on line 2 of the claim the Examiner suggests the phrase “plurality of third registers” instead read “plurality of control registers” in order to lessen confusion as well as make the claim language more in line with the specification (just as the Applicant has done in claims 5 and 20 by using the language “plurality of control registers”).

8. **As per claim 22**, on line 1 of the claim the word “lcoation” should read “location.”

Appropriate correction is required.

**REJECTIONS NOT BASED ON PRIOR ART**

**Claim Rejections - 35 USC § 112**

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. **Claims 5 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter in question is disclosed in claims 5 and 20. The claims disclose "a first operational code is associated with a first block and a second operational code is associated with a second block." However, Applicant's specification does not specifically disclose this subject matter. Paragraph 0015, lines 10-11 disclose the fact that operational code 142 provides direction for handling operations on the designated block. However, nowhere in Applicant's specification does it specifically disclose that there are two **distinct** operational codes associated with two **distinct** blocks as claimed in claims 5 and 20.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. **Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

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13. The claim recites the limitation "said plurality of block indicator registers" in lines 4-5 of the claim. There is insufficient antecedent basis for this limitation in the claim. Applicant may consider amending the claims to read "said plurality of location registers."

## **REJECTIONS BASED ON PRIOR ART**

### **Claim Rejections - 35 USC § 102**

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. **Claims 1-4, 6-12, 15-18, 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Don Pannell, "Clause 22 Access to Clause 45 Registers", hereafter "Pannell."**

16. **As per claim 1**, Pannell discloses a method for expanding addressing capability of a plurality of registers (pg. 14, the "Addr Reg", the "C45 RW Control", and the "65,536 Registers") and connected to an interface comprising:

designating at least two of the plurality of registers as a block of registers (pg. 14, the "65,536 Registers"); *It should be noted that the 65,536 registers comprise at least one "block of registers"*

providing a plurality of such blocks of registers (pg. 14, the "65,536 Registers");

designating a first register within the plurality of registers that is separate from the blocks of registers as a location register for selectively characterizing at least one of

such blocks of registers as an indicated block of registers (pg. 14, the "Addr Reg"; pg. 10, the "Management Frame Fields - Clause 45" table); *It should be noted that the "Addr Reg" is analogous to the "first register." It should also be noted that the Addr Reg is used to address (i.e. characterize) the block of 65,536 Registers.*

and designating a second register within the plurality of registers that is separate from the blocks of registers as a control register for specifying at least one operation for the indicated block of registers (pg. 14, the "C45 R/W Control"; pg. 10, the "Management Frame Fields - Clause 45" table). *It should be noted that the "C45 R/W Control" is analogous to the "second register." It should also be noted that the "opcode" stored in C45 R/W Control specifies at least one operation for the block of 65,536 Registers.*

17. **As per claim 2**, Pannell discloses the first register includes a block selector for selectively characterizing at least one of such blocks of registers as an indicated block of registers (pg. 14, the "Device Select" signal). *It should be noted that the Device Select signal sent to the C45 R/W Control and then eventually to the Addr Reg effectively acts as a "block selector" for the Addr Reg.*

18. **As per claim 3**, Pannell discloses the second register includes an operational code (pg. 14, the "the Opcode" being sent to the C45 R/W Control). *It should be noted that "Opcode" is analogous to "operational code."*

19. **As per claim 4**, Pannell discloses the second register includes a port indicator (pg. 14, the "Port Select" signal). *It should be noted that the Port Select signal sent to*



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*the MUX, then AND gate, and eventually to the C45 R/W Control effectively acts as a "port indicator" for the C45 R/W Control.*

20. **As per claim 6**, Pannell discloses said location and control registers comprise registers compatible with IEEE standard 802.3 clause 22 (pg. 25).

21. **As per claim 7**, Pannell discloses a system for expanding the addressing capability of a plurality of registers (pg. 14, the "Addr Reg", the "C45 R/W Control", and the "65,536 Registers"), the system comprising:

a plurality of blocks of registers, each block of registers having at least two registers (pg. 14, the "65,536 Registers");

a location register separate from the plurality of blocks of registers for selectively characterizing at least one of the blocks of registers as a specified block of registers (pg. 14, the "Addr Reg"; pg. 10, the "Management Frame Fields - Clause 45" table); *It should be noted that the "Addr Reg" is analogous to the "location register."*

a control register separate from the plurality of blocks of registers for selecting at least one operational code for the specified block of registers and specifying at least one port number for the specified block of registers (pg. 14, the "C45 R/W Control"; pg. 10, the "Management Frame Fields - Clause 45" table); *It should be noted that the "C45 R/W Control" is analogous to the "control register."*

and a control engine operable to access the operational code for the specified block of registers and act on the specified block of registers at each of the specified port numbers in accordance with the operational code (pg. 14, the "Existing Clause 22 STA"). *It should be noted that the "Existing Clause 22 STA" is analogous to the "control*

*engine.” It should be noted that the STA (station management) accesses and controls the PHY (physical layer interface). Thus, it is inherently required the STA access and control the block of 65,536 Registers within the PHY in accordance with the Opcode signal.*

22. **As per claim 8**, Pannell discloses the operational code specifies an operation to be performed on the specified block of registers (pg. 7, right column, lines 2-4; pg. 10, the “Management Frame Fields - Clause 45” table).

23. **As per claim 9**, Pannell discloses the operation is restricting the specified block of registers to read operations only (pg. 10, the “Management Frame Fields - Clause 45” table, the row entitled “Read.”) *It should be noted that Opcode “11” results in a read operation.*

24. **As per claim 10**, Pannell discloses the operational code specifies control sequencing information (pg. 10, the “Management Frame Fields - Clause 45” table, the row entitled “Read Inc.”).

25. **As per claim 11**, Pannell discloses the control sequencing information instructs the control engine to proceed to a next block after completing operations with the specified block (pg. 10, the “Management Frame Fields - Clause 45” table, the row entitled “Read Inc.”; pg. 21, lines 4-6).

26. **As per claim 12**, Pannell discloses said location register includes a block selector indicating said block. (pg. 14, the “Device Select” signal). *Please see the citation note for claim 2 above.*

27. **As per claim 15**, Pannell discloses said control register is operable to store an operational code (pg. 14, the "the Opcode" being sent to the C45 R/W Control).

28. **As per claim 16**, Pannell discloses said control register is further operable to store a register indicator indicative of a register within said block (pg. 14, the signal sent from the "C45 R/W Control" to the "Addr Reg"). *It should be noted that the Addr Reg gets all its information from the C45 R/W Control, therefore, because the Addr Reg addresses the block of 65,536 Registers, it is inherently required the C45 R/W Control stores register addresses (i.e. register indicators) of registers within the block of 65,536 Registers.*

29. **As per claim 17**, Pannell discloses said control register is further operable to store a port indicator (pg. 14, the "Port Select" signal). *Please see the citation note for claim 4 above.*

30. **As per claim 18**, Pannell discloses said control register is operable to specify a plurality of ports (pg. 7, line 5; pg. 14, the "5 Port Address Pins" and the "Port Select" signal).

31. **As per claim 22**, Pannell discloses said location and control registers are registers specified by IEEE standard 802.3 clause 22 (pg. 25).

32. **As per claim 23**, Pannell discloses a plurality of register banks, each bank including a plurality of register blocks (pg. 14, the "65,536 Registers"). *It should be noted that when taking the broadest reasonable interpretation of the claim language a "bank" is merely an arbitrary unit of "blocks." Since a block comprises at least two*

*registers and a bank comprises at least two blocks, it follows that since Pannell discloses 65,536 registers Pannell also discloses a plurality of "banks."*

33. **As per claim 24**, Pannell discloses said location register further indicates at least one of said register blocks (pg. 14, the "Addr Reg"; pg. 10, the "Management Frame Fields - Clause 45" table). *It should be noted that the Addr Reg is used to address (i.e. indicate) the 65,536 Registers.*

**Claim Rejections - 35 USC § 103**

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35. **Claim 13 is rejected under 35 U.S.C. 103(a) as being obvious over Pannell in view of Nick Parlante "Pointers and Memory", hereafter "Parlante."**

36. Pannell discloses said location register includes a block selector. (pg. 14, the "Device Select" signal). *Please see the citation note for claim 2 above.*

Pannell does not expressly disclose said location said location register includes a pointer to a block selector.

Parlante discloses pointers (pg. 3, 1<sup>st</sup> paragraph).

Pannell and Parlante are analogous art because they are from the same field of endeavor, that being memory systems.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Parlante's pointers within Pannell's location register.

The motivation for doing so would have been because pointers allow different sections of code to share information easily. You can get the same effect by copying information back and forth, but pointers solve the problem better. Also, pointers enable complex "linked" data structures like linked lists and binary trees (Parlante, pg. 3, 2<sup>nd</sup> paragraph).

Therefore, it would have been obvious to combine Pannell and Parlante for the benefit of obtaining the invention as specified in claim 13.

**37. Claim 25 is rejected under 35 U.S.C. 103(a) as being obvious over Pannell in view of Webb et al. (U.S. Patent 5,694,587).**

Pannell discloses a location register (pg. 14, the "Addr Reg").

Pannell does not expressly disclose a mask register following the location register and specifying a mask for the specified block of registers.

Webb discloses a mask register specifying a mask (col. 6, line 67 – col. 7, line 3; col. 7, lines 40-42).

Pannell and Webb are analogous art because they are from the same field of endeavor, that being computer systems.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Webb's mask register within Pannell's Clause 22/Clause 45 system.

The motivation for doing so would have been to allow fast access to mask (Webb, col. 7, line 41).

Therefore, it would have been obvious to combine Pannell and Webb for the benefit of obtaining the invention as specified in claim 25.

### **Conclusion**

### **STATUS OF CLAIMS IN THE APPLICATION**

The following is a summary of the treatment and status of all claims in the application as recommended by MPEP 707.70(i):

### **Allowable Subject Matter**

38. **Claims 5, 14, and 19-21** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

39. **Claims 5 and 20** also need to be rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

40. **Claim 20** also need to be rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

41. If Applicant should choose to rewrite the independent claims to include the limitations recited in either one of **claims 5, 14, and 19-21**, the Applicant is encouraged

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to amend the title of the invention such that it is descriptive of the invention as claimed as required by sec. 606.01 of the MPEP. Furthermore, the Summary of the Invention and the Abstract should be amended to bring them into harmony with the allowed claims as required by paragraph 2 of sec. 1302.01 of the MPEP.

42. As allowable subject matter has been indicated, Applicant's response must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 C.F.R. § 1.111(b) and § 707.07(a) of the MPEP.

**Claims Rejected in the Application**

Per the instant office action, **claims 1-4, 6-13, 15-18, 22-25** have received a first action on the merits and are subject of a first action non-final.

**RELEVANT ART CITED BY THE EXAMINER**

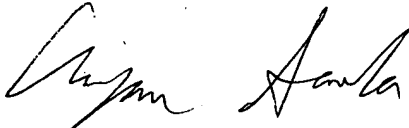
The following prior art made of record and not relied upon is cited to establish the level of skill in Applicant's art and those arts considered reasonably pertinent to Applicant's disclosure. See MPEP 707.05(e).

1. U.S. Patent 6,011,799 discloses a method and apparatus for managing external physical layer devices.
2. U.S. Patent 6,215,816 discloses a physical layer interface device.
3. U.S. Patent 7,039,690 discloses a system and method for accessing registers of PHY device in network.

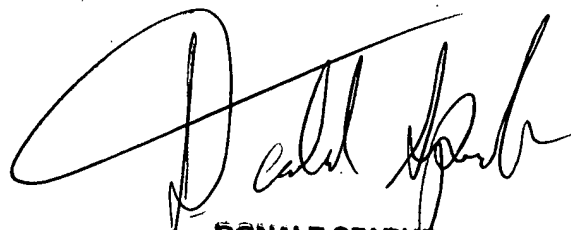
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arpan P. Savla whose telephone number is (571) 272-1077. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Arpan Savla  
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Art Unit 2185  
June 26, 2006



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